

**REMARKS**

The Examiner is thanked for the due consideration given the application. The specification has been amended to insert headings.

Claims 1-21 are pending in the application. Claims 1-20 have been amended to improve their language in a non-narrowing fashion. Claim 21 is new and generally recites subject matter cancelled from claim 1.

No new matter is believed to be added to the application by this amendment.

**Rejection Under 35 USC §112, Second Paragraph**

Claims 1-20 have been rejected under 35 USC §112, second paragraph as being indefinite. This rejection is respectfully traversed.

The comments in the Official Action have been considered, and the claims have been amended to be clear, definite and have full antecedent basis.

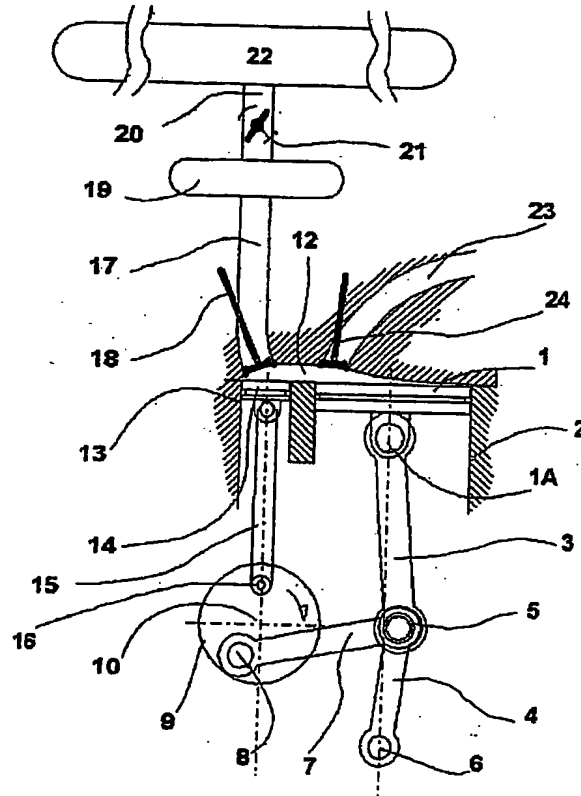
This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

**Rejections Based on NEGRE et al.**

Claims 1, 2, 4-6, 9 and 11-20 have been rejected under 35 USC §102(b) as being anticipated by NEGRE et al. (U.S. Patent 6,305,171). Claims 3, 7 and 8 have been rejected under 35 USC §103(a) as being unpatentable over NEGRE et al. Claim 10 has been rejected under 35 USC §103(a) as being unpatentable over NEGRE et

al. in view of ZALESKI (U.S. Patent 6,568,186). These rejections are respectfully traversed.

The present invention pertains to an active chamber engine that is illustrated, by way of example, in Figure 1 of the application, which is reproduced below.

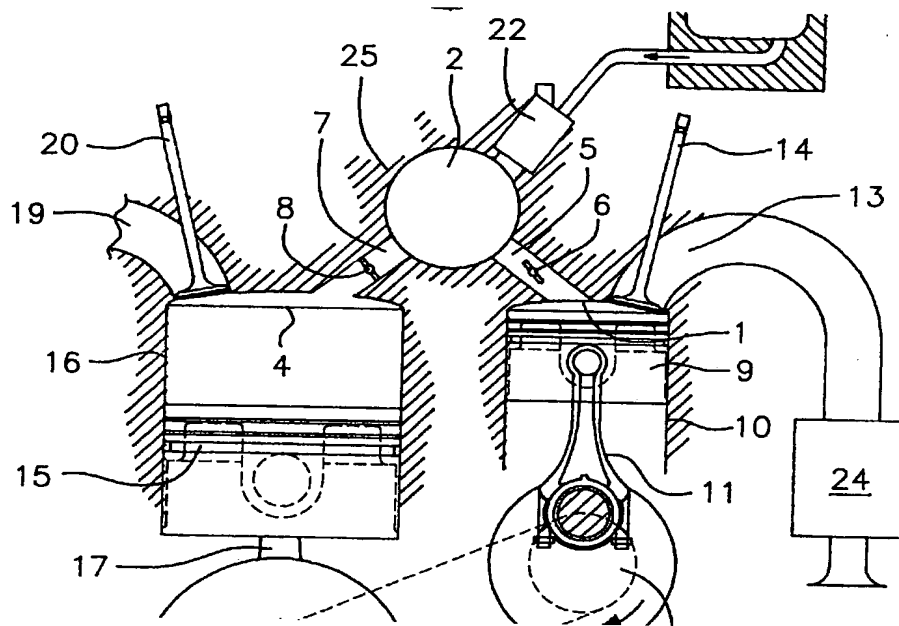


**FIG. 1**

Figure 1 shows an expansion chamber of a variable volume fitted with a means to produce work (i.e., a piston 1, etc.) and that is joined to an in contact with a space contained above the main engine piston by means of a permanent passage 12.

Claim 1 of the present invention recites: "an expansion chamber has a variable volume fitted with means to produce work and is joined to and in contact with a space contained above a main engine piston by means of a permanent passage (12)."

NEGRE et al. pertain to additional thermal heating for a motor vehicle using an engine with additional compressed air injection. A portion of Figure 1 of NEGRE et al. is reproduced below.



In NEGRE et al. the intake and compression chamber 1 is connected to the combustion or expansion chamber 2 by a pipe 5, **the opening and closing of which are controlled by a sealed shutter 6**. The combustion or expansion chamber 2 is connected to the expansion and exhaust chamber 4 by a pipe or transfer port 7, **the opening and closing of which are controlled by a sealed**

**shutter 8.** The intake and compression chamber 1 is coupled with air by an intake pipe 13, the opening of which is controlled by a valve 14 and upstream of which there is a pollution-reducing charcoal filter 24.

As a result, NEGRE et al. fail to have a permanent (i.e., never "shut") passage, as is found in the present invention.

Further, claim 1 of the present invention additionally recites: "when the expansion chamber being maintained at very nearly its maximum volume, the compressed air contained within the expansion chamber then expands into the engine cylinder thus pushing the engine piston downwards along its travel by in turn supplying work."

There is no teaching or suggestion of this additionally limitation of claim 1 in NEGRE et al.

As a result, NEGRE et al. fail to anticipate claim 1 of the present invention. Claims depending upon claim 1 are patentable for at least the above reasons.

At page 3 the Official Action acknowledges that NEGRE et al. fail to disclose four phases or the specific thermo chemical gas sold reaction. The Official Action then asserts that these limitations would be obvious to one of ordinary skill.

However, the Official Action fails to point out where in the single reference of NEGRE et al. resides the teaching or suggestion to modify their technology to achieve these aspects of the present invention.

If a reference needs to be modified to achieve the claimed invention "there must be a showing of a suggestion or motivation to modify the teachings of that reference to the claimed invention in order to support the obviousness conclusion." *Sibia Neurosciences Inc. v. Cadus Pharmaceutical Corp.*, 225 F.3d 1349, 55 USPQ2d 1927 (Fed. Cir. 2000).

At page 3 the Official Action additionally acknowledges that NEGRE et al. fail to disclose a computer control unit. The Official Action turns to ZALSESKI for these teachings to reject claim 10.

As a result, these additional factors fail to address the deficiencies of NEGRE et al. in anticipating a claimed embodiment of the present invention. A *prima facie* case of unpatentability has thus not been made.

These rejections are believed to be overcome, and withdrawal thereof is respectfully requested.

#### **Conclusion**

The Examiner is thanked for considering the Information Disclosure Statements filed May 16, 2006 and August 16, 2006, and for making an initialed PTO-1449 forms of record in the application.

Prior art of record but not utilized is believed to be non-pertinent to the instant claims.

The rejections are believed to be overcome, obviated or rendered moot, and that no issues remain. The Examiner is

accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

Please charge the requisite fee of \$25 for the one extra claim of any type to our credit card as set forth in the attached Credit Card Payment Form.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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